

ABSTRACT

This invention provides a method and system capable of the continuous, real-time measurement of low concentrations of aqueous free cyanide (CN) using an on-line, flow through system. The system is based on the selective reactivity of cyanide anions and the characteristically nonreactive nature of metallic gold films, wherein this selective reactivity is exploited as an indirect measurement for aqueous cyanide. In the present invention the dissolution of gold, due to the solubilization reaction with the analyte cyanide anion, is monitored using a piezoelectric microbalance contained within a flow cell.

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